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Substitute for form 1449A/B/PTO	Complete if Known		
	Application Number	To Be Assigned 10/581797	
INFORMATION DISCLOSURE	Filing Date	June 2, 2006	
STATEMENT BY APPLICANT	First Named Inventor	Yang YANG et al.	
	Art Unit	TO Be Assigned 2818	
(Use as many sheets as necessary)	Examiner Name	To Be Assigned Long Tran	
Sheet 1 of 1	Attorney Docket Number	58086-231274	

,,			U.S. PA	TENT DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
(nitials*	No.	Number-Kind Code ² (#known)	MM-OD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
/L1/	AA	6,600,473 B1	07/29/2003	KOBAYASHI et al.	
ILT/	AB	US 2002/0031602 A1	03/14/2002	ZHANG	
_/1. T/	AÇ	4,507,672	03/26/1985	POTEMBER et al.	
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	FOREIGN PATENT DOCUMENTS									
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	NON PATENT LITERATURE DOCUMENTS									
Examiner Initials Cite No.1 Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the larm (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.										
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Applicant's unique citation designation number (optional). *Applicant is to place a check mark here if English language Translation is attached.

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	ST	ATEM	ENT	BY A	PPLICA	IT.	First Named Inventor	Yang Yang
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1	1	1 Y		U.S. PA	TENT DOCUMENTS	
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	Initials*	No.	Number-Kind Cade ² (If known		Applicant of Cited Document	Relevant Passages or Relevant Figures Appear
l		AA	U.S. 6,950,331	02/12/2004	Yang YANG et al.	
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		i		N PATENT	DOCUMENTS		٦
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	amuner lets*	No.	Country Code ³ -Number ⁴ -Kind Code ⁸ (if known)	Date ;MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages Or Relevant Figures Appear	۲٩
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n .	* # *:	NON PATENT LITERATURE DOCUMENTS	•
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
/LT/	CA	K. Takimoto, H. Kawade, E. Kishi, K. Yano, K, Sakai, K. Hatanaka, K. Eguchi, and T. Nakagiri, Appl. Phys. Lett., 61, 3032 (1992)	
	CB St.	Yu. G. Kriger, N.F. Yudanov, I.K. Igumenov, and S.B. Vashchenko, J. Struct. Chem. 34, 968 (1993).	
5	CC	R.S. Potember and T.O. Poehler, Appl. Phys. Lett., 34, 405 (1979).	Π^-
	CD	H.J. Gao, K. Sohlberg, Z.Q. Xue, H.Y. Chen, S.M. Hou, L.P. Ma, X.W. Fang, X.W. Fang, S.J. Pang, and S.J. Pennycook, Phys. Rew. Lett. 84, 1780 (2000).	$ \mathcal{T} $
	CE	L.P. Ma, J. Liu and Y. Yang, Appl. Phys. Lett. 80; 2997 (2002).	Π
	CF	L.P. Ma, J. Liu, S. Pyo, and Y. Yang, Appl. Phys. Lett. 80, 362 (2002).	Π
941	CG	L.P. Ma, S.M. Pyo, J. Ouyang, Q. Xu and Y. Yang. Appl. Phys. Lett. 82, 1419 (2003).	
	СН	A. Bandyopadhyay and A.J. Pal, Appl. Phys. Lett. 82, 1215 (2003).	
V	Ci	H.S. Majumdar, A. Bandyopadyay, A. Bolognesi, and A. J. Pal, J. Appl. Phys. 91, 2433 (2002).	
/LT/	CJ	D.M. Taylor and C. A. Mills, J. Appl. Phys. 90, 306 (2001).	

*EXAMINER: trittal if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. #857642

Examiner Signature	/Long Tran/		Date Considered	12/16/2007

Used in Lieu of PTO/SB/08A/B (Based on PTO 10-07 version)

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Substitute for form 1449/PTO		Complete If Known
	Application Number	10/581 797 - Conf. # 4944
INFORMATION DISCLOSURE	Filing Date	June 2, 2006
STATEMENT BY APPLICANT	First Named Inventor	Yang Yang
	Art Unit	2818
(Use as many sheets as necessary)	Examiner Name	Long K. Tran
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1, 1	il.Ep		*		TENT DOCUMENTS	
xamine		Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
nitials.	1	No.	Number-Kind Code ² (# khown)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
71	7	A1	2002/0010261 A1	01-24-2002	Callahan et al.	
1		A2 1	2002/0163828 A1	11-07-2002	Krieger et al.	
1.		A3	2002/0163831 A1	11-07-2002	Krieger et al.	1
	_	A4	2002/0195600 A1	12-26-2002		
1		A5	2003/0053350 A1	03-20-2003	Krieger et al.	
	_+:	A6	2003/0063362 A1.	04-03-2003	Dernir et al.	
		A7	2003/0155602 A1	08-21-2003	Krieger et al.	
		8A	2003/0173612 A1		Krieger et al.	
7	-	A9.	2003/0178667 A1	09-25-2003	Krieger et al.	
- 1			2003/0179633 A1		Krieger et al.	
-	-	A11	2004/0026714 A1	02-12-2004	Krieger et al.	
		A12	2004/0159835 A1	08-19-2004	Krieger et al.	1
7.		AI3	2004/0160801 A1	08-19-2004	Krieger et al.	
		A14	2004/0246768 A1	12-09-2004		
1,	_	A15	2005/0111071 A1	05-26-2005	Kojima et al.	
4	_		3719933	03-06-1973	Wakabayashi et ai.	
1, 1, 1		A17	3833894	09-03-1974		
	_	A18 .	4144418	03-13-1979	Girand et al.	
	_	A19	4371883	02-01-1983	Potember et al.	
	-	A20	4652894	03-24-1987	Potember et al.	
	_	A21	4663270	05-05-1987	Potember et al.	
1:	_	A22	4987023	01-22-1991	Sato et al.	
7	_	A23	5075738	12-24-1991	Matsuda et al.	1
	_		5136212	08-04-1992	Eguchi et al.	
11	1	A25	5238607	08-24-1993	Herron et al.	1
' 1 ;		A26	5543631	08-06-1996	Weinberger	
	_		5563424	10-08-1996		
		A28	5569565	10-29-1996		i
7.	_	A29.	5610898	03-11-1997	Takimoto et al.	
		A30	5761115	06-02-1998	Kozicki et al.	
		A31	6015631	01-18-2000	Park	1
		A32	6055180	04-25-2000	Gudesen, et al.	
	_	A33 .	6122031	09-19-2000	Ferada et al.	
	_	A34	6208553	03-27-2001	Gryko et al.	
7		A35	6229047	05-08-2001	Glaser et al.	
		A36	6631085	10-07-2003	Kleveland et al.	, '
\neg	_	A37	6774880	08-10-2004	Kobayashi	
T	_	A38:	6828685	12-04-2004	Stasiak	
7		A39	6852555	02-08-2005	Roman et al.	

	•			
Examiner /Long Tran/		1	 Date Considered	12/16/2007

Used in Lieu of PTO/SB/08A/B (Based on PTO 10-07 version)

Complete If Known Substitute for form 1449/PTO 10/581,797 - Conf. # 4944 Application Number NFORMATION DISCLOSURE Filing Date June 2, 2006 STATEMENT BY APPLICANT Yang Yang First Named Inventor Art Unit 2818 (Use as many sheets as necessary) Examiner Name Long K. Tran 58086-231274 2 Attorney Docket Number Sheet of 6

			FOREI	GN PATENT	DOCUMENTS		
Examine	niner Cit		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages	۔
initiats*		No.1 Country Code ³ -Number ⁴ -Kind Code ⁶ (If Innown)		MM-DD-YYYY	Applicant of Cited Document	Or Relevant Figures Appear	
/LT/	/ [31	WO 01/71814 A1	09-27-2001	Japan Science and Technology Corporation		
	,	32	WO 02/37500 A1	05-10-2002	The Regents of the University of California		
W	1	33	WO 02/091496 A2	11-14-2002	Coatue Corporation		
/LT	7/18	B4	WO 2004/064074	07-29-04	Siemens Aktiengesellschaft		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. *CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filled after June 30, 2003 or is available in the IFW. Applicant's unique citation designation number (optional). *See Kinds Codes of USPTO Patent Documents at www.usptc.gov or MPEP 901.04. *Inter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	_
Examiner Cite Initials No.1		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, imagazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ²
/LT/	C1	The Electrochemical Society - Current Affairs - Abstracts of "Recent News" Papers, Presented at Electronics Division Semiconductor Symposia, Los Angeles, CA (1962).	
	C2	OVSHINSKY, S.R., "Localized States in the Gap of Amorphous Semiconductors", Phys. Rev. Lett., Vol. 36 (No. 24), June 14, 1976, p. 1469-1472.	
i.	C3	HQVEL, H.J. and J.J. URGELL, "Switching and Memory Characteristics of ZnSe – Ge Heterojunctions", J. Appl. Phys. 42, 5076 (1971).	
	C4	KUMAI, R., Y. OKIMOTO and Y. TOKURA, "Current-Induced Insulator-Metal Transition and Pattern Formation in an Organic Charge-Transfer Complex", Science 284, 1645 (1999).	
	C5	GARNIER, F., R. HAJLAOUI, A. YASSAR and P. SHIRAKAWA, "All-Polymer Field-Effect Transistor Realized by Printing Techniques", Science 265, 1684 (1994).	$ lab{1}$
,	C6	HIDE, F., M.A. DIAZ-GARCIA, B.J. SCHWARTZ, M.R.A. ANDERSSON, Q. PEI and A.J. HEEGER, Science 273, 1833 (1996).	\prod
	C7	FUJITA, W. and K. AWAGA, "Room-Temperature Magnetic Bistability in Organic Radical Crystals", Science, Vol. 286 p. 261 (1999).	
	C8	BURROUGHES, J.H., D.D.C. BRADLEY, A.R. BROWN, R.N. MARKS, K. MACKAY, R.H. FRIEND, P.L. BURN and A.B. HOLMES, "Light-Emitting Diodes Based on Conjugated Polymers", Nature, Vol. 347, p. 539 (1990).	
	C9	YAMADA, T., D. ZOU, H. JEONG, Y. AKAKI and T. TSUTSUI, "Recoverable Degradation and Internal Field Forming Process Accompanied by the Orientation of Dipoles in Organic Light Emitting Diodes", Synthetic Metals, 111-112, 237 (2000).	
	C10	LIU, J., Y. SHI, L.P. MA and Y. YANG, "Device Performance and Polymer Morphology in Polymer Light Emitting Diodes: The Control of Device Electrical Properties and Metal/Polymer Contact", J. Appl. Phys. 88, 605 (2000).	
	C11	HAMADA, Y., C. ADACHI, T. TSUTSUI and S. SAITO, "Blue-Light-Emitting Organic Electroluminescent Devices with Oxadiazole Dimer Dyes as an Emitter", Jpn. J. Appl. Phys. 31, 1812 (1992).	
/LT/	C12	SILVA, et al., Bistable Switching And Memory Devices; Journal of non-Crystalline Solids; (1970) oo, 316-333 No. Holland Publishing Co., Amsterdam	

Examiner	/Long Tran/	,	1		Date	12/16/2007
Signature	/Long Iran/	•	i	i_il	Considered	12/10/2007

Used in Lleu of PTO/SB/08A/B (Based on PTO 10-07 version)

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INF	ORMATION	DIS	SCLOSURE	Filing Date	June 2, 2006	
ST	ATEMENT E	BY A	APPLICANT	First Named Inventor	Yang Yang	
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Sheet	3 ; '.	of	6	Attorney Docket Number	58086-231274	

			-
/LT/	C13	BOZANO, et al; Mechanism for Bistability in Organic Memory Elements; Applied Physics Letters, (2004); Vol. 84, No. 4, pp. 607-609; 2004 American Institute of Physics.	L
	C14	HUA, et al.; New Organic Bistable Films for Ultrafast Electric Memories; Applied Surface Science, 169-170 (20010 pp. 447-451, Elsevier Science B.V.	
	C15	BEINHOFF, et al., Poybiphenymethylenes: New Polymers for Bistable Organic Switches; Polymeric Materials: Science and Engineering 90, (2004) 211, 212, U.S.	
	C16	SEZI, et al.; Organic Materials for High-Density NonVolatile Memory Applications; Proc. IEEE Int. Elec. Dev. Meeting; (2003); Germany	
	C17	KEVORKIAN, et al.; bistable Switching in Organic Thin Films; Discussions of the Faraday Society, 51, (1971) pp. 139-142; U.S.	
	C18	PEI, Qibing et al., Polymer Light-Emitting Electrochemical Cells, Science, New Series, Vol. 269, No. 5227 (August 25, 1995), pp. 1086-1088	
	C19	Kolega et al., Langmiur 1998, vol. 14, p. 5469-5478.	π
	C20	Schlaf et al., "Photoemission Spectrocscopy of LiF Coated Al and Pt Electrodes", Journal of Applied Physics, Vol. 84, No. 12, pgs. 6729-6736.	I
	C21	BEELER, F., O.K. ANDERSEN and M. SCHEFFLER", Theoretical Evidence for Low-Spin Ground States of Early Interstitial and Late Substitutional 3d Transition-Metal tons in Silicon", Phys. Rew. Lett. 55, 1498 (1985).	
	C22	BQYD, G.D., J. CHENG and P.D.T. NGO, "Liquid-Grystal Orientational Bistability and Nematic Storage Effects", Appl. Phys., Lett. 36, 556 (1980).	
	C23	BROWN, W.D. and J.E. BREWER, "Nonvolatile Semiconductor Memory Technology", IEEE Press, New York (1998).	П
	C24	CHEN, J., W. WANG, M.A. REED, A.M. RAWLETT, D.W. PRICE and J.M. TOUR, "Room- Temperature Negative Differential Resistance in Nanoscale Molecular Junctions", Appl. Phys. Lett. 77, 1224 (2000).	
	C25	DEWALD, J.F., A.D. PEARSON, W.R. NORTHOVER and W.F. PECK, JR., "Semi-Conducting Glasses", Electrochem. Soc., 109, 243c (1962).	
	C26	FALTERMEIER, C., C. GOLDBERG, M. JONES, A. UPHAM, D. MANGER, G. PETERSON, J. LAU, A.E. KALOYEROS, B. ARKLES, and A. PARANJPE, "Barrier Properties of Titanium Nitride Films Grown by Low Temperature Chemical Vapor Deposition from Titanium Tetraoidide", J. Electrochemical Society, 144, 1002 (1997).	
	C27	GRULER, H. and L. CHEUNG, "Dielectric Alignment in an Electrically Conducting Nematic Liquid Crystal", J. Appl. Phys. 46, 5097 (1975).	Γ
	C28	ISTRATOV, A.A. and E.R. WEBER, "Physics of Copper in Silicon", J. Electrochemical Society, 149, G21 (2002).	
	C29	ISTRATOV, A.A., C. FLINK, H. HIESLMAIR, E.R. WEBER and T. HEISER, "Intrinsic Diffusion Coefficient of Interstitial Copper in Silicon", Phys. Rev. Lett. 81, 1243 (1998).	
	C30	ISTRATOV, A.A., C. FLINK, H. HIESLMAIR, S.A. MCHUGO and E.R. WEBER, "Diffusion, Solubility and Gettering of Copper in Silicon", Materials Science and Engineering Technology B, 72, 99 (2000).	
	C31	KALOYEROS, A.E. and E. EISENBRAUN, "Ultrathin Diffusion Barriers/Liners for Gigascale Copper Metallization", Annual Rev. Materials Science, 30, 363 (2000).	
	C32	KRISHNAMOORTHY, A., K. CHANDA, S.P. MURARKA, G. RAMANATH and J.G. RYAN, "Self-Assembled Near-Zero-Thickness Molecular Layers as Diffusion Barriers for Cu Metallization", Appl. Phys. Lett. 78, 2467 (2001).	
/LT/	C33	LANE, M.W., E.G. LINIGER and J.R. LIOYD, "Relationship Between Interfacial Adhesion and Electromigration in Cu Metallization", J. Appl. Phys. 93, 1417 (2003).	

Examiner /Long Tran/	Date Considered	12/16/2007

Complete If Known Substitute for form 1449/PTO 10/581,797 - Conf. # 4944 Application Number **INFORMATION DISCLOSURE** June 2, 2006 Filing Date STATEMENT BY APPLICANT First Named Inventor Yang Yang 2818 Art Unit (Use as many sheets as necessary) Long K. Tran Examiner Name 58086-231274 of 6 Sheet 4 Attorney Docket; Number:

: /LT/	C34	LEE, K.L., C.K. HU and K.N. TU, "In-Situ Scanning Electron Microscope Comparison Studies on Electromigration of Cu and Cu(Sn) Alloys for Advanced Chip Interconnects", J. Appl. Phys. 78, 4428-4437 (1995).	
	C35	LOKE, A.L.S., J.T. WETZEL, P.H. TOWNSEND, T. TANABE, R.N. VRTIS, M.P. ZUSSMAN, D. KUMAR, C. RYU and S.S. WONG, "Kinetics of Copper Drift in Low-Kappa Polymer Interlevel Dielectrics", IEEE Transactions on Electron Devices 46, 2178 (1999).	
	C36	MA, L.P., J. LIU, S.M. PYO, Q.F. XU and Y. YANG, "Organic Bistable Devices", Mol. Cryst. Liq. Cryst. 378, 185 (2002).	
	C37	MA, L.P., W.J. YANG, S.S. XIE and S.J. PANG, "Ultrahigh Density Data Storage from Local Polymerization by a Scanning Tunneling Microscope", Appl. Phys. Lett. 73, 3303 (1998).	
	C38	MCBRAYER, J.D., R.M. SWANSON and T.W. SIGMON, "Diffusion of Metals in Silicon Dioxide", J. Electrochem. Soc. 133, 1242 (1986).	
	C39	NAKAYAMA, K., K. KOJIMA, Y. IMAI, T. KASAI, S. FÜKUSHIMA, A. KITAGAWA, M. KUMEDA, Y. KAKIMOTO and M. SUZUKI, "Nonvolatile Memory Based on Phase Change in Se-Sb-Te Glass", J. J. Appl. Phys., Part 1, 42 (2A), 404 (2003).	
	Ç40	OSTRAAT, M.L., J.W. DE BLAUWE, M.L. GREEN, L.D. BELL, M.L. BRONGERMA, J.R. CASPERSON, C. FLAGAN and H.A. ATWATER, , "Synthesis and Characterization of Aerosol Silicon Nanocrystal Nonvolatile Floating-Gate Memory Devices", Appl. Phys. Lett. 79, 433 (2001).	
	C41	PATEL, J.S., "Room-Temperature Switching Behavior of Ferroelectric Liquid Crystals in Thin Cells," Appl. Phys. Lett. 47, 1277 (1985).	
	C42	ROSENBERG, R., D.C. EDELSTEIN, C.K. HU, and K.P. RODBELL, "Copper Metallization for High Performance Silicon Technology", Annual Rev. Materials Science, 30, 229 (2000).	
	C43	SEGUI, Y., Ai BUI and H. CARCHANO, "Switching in Polystyrene Films: Transition from On to Off State", J. Appl. Phys. 47, 140 (1976).	
	C44	SPRANG, H. A. van, and J.L. M. van de VENNE, "Influence of the Surface Interaction on Threshold Values in the Cholestericnematic Phase Transition", J. Appl. Phys. 57, 175 (1985).	П
	C45	WANG, M.T., Y.C. LIN, and M.C. CHEN, "Barrier Properties of Very Thin Ta and TaN layers Against Copper Diffusion", J. Electrochemical Society, 145, 2538 (1998).	П
	C46	YANG, K.H., T.C. CHIEU and S. OSOFSKY, "Depolarization Field and Ionic Effects on the Bistability of Surface-Stabilized Ferroelectric Liquid-Crystal Devices", Appl. Phys. Lett. 55, 125 (1989).	
	C47	Bachtold, Adrian et al., "Logic Circuits with Carbon Nanotube Transistors", <u>SCIENCE</u> , Vol. 294, November 9, 2001, pps. 1317-1320.	
	C48	Duan, Xiangfeng et al., "Indium Phosphide Nanowires as Building Blocks for Nanoscale Electronic and Optoelectronic Devices", NATURE, Vol. 49, January 4, 2001, pps. 66-69.	
	C49	Gudiksen, Mark S. et al., "Growth of Nanowire Superlattice Structures for Nanoscale Photonics and Electronics", <i>NATURE</i> , Vol. 415, February 7, 2002, pps. 617-620.	
	C50	Huynh, Wendy U. et al., "Hybrid Nanorod-Polymer Solar Cells", SCIENCE, Vol. 295, March 29, 2002, pps. 2425-2427.	
	C51	Adams, David M. et al., "Charge Transfer on the Nanoscale: Current Status", <u>J. Phys. Chem.</u> B., 2003, Vol. 107, No. 28, pps. 6668-6697.	
	C52	Kamat, Prashant V. et al., "Electrochemical Modulation of Fluorophore Emission on a Nanostructured Gold Film", <i>Angew. Chem. Int.</i> Ed. 2002, Vol. 41, No. 15, pps. 2764-2767.	
\mathbf{V}	C53	Chen, Shaowei et al., "Gold Nanoelectrodes of Varied Size: Transition to Molecule-Like Charging", SCIENCE, Vol. 280, June 26, 1998, pps. 2098-2101.	
/LT/	C54	Wuelfing, W. Peter et al., "Electronic Conductivity of Solid-State, Mixed-Valent, Monolayer-Protected Au Clusters", <i>J. Am. Chem. Soc.</i> 2000, Vol. 122, No. 46, pps. 11465-11472.	

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11	NFORMATION	I DI	SCLOSURE	Filing Date	June 2, 2006		
S	TATEMENT E	3Y /	APPLICANT	First Named Inventor	Yang Yang		
				Art Unit	2818		
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Sheet	5	of	6	Attorney Docket Number	58086-231274		

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C55	Ouyang, Jianyong et al., "Programmable Polymer Thin Film and Non-Volatile Memory Device", Nature Publishing Group, Nature Materials, Vol. 3, December 2004, pps. 918-922.	
C56	Hostetler, Michael J. et al., "Alkanethiolate Gold Cluster Molecules with Core Diameters from 1.5 to 5.2 nm: Core and Monolayer Properties as a Function of Core Size", <i>Langmuir</i> , 1998, Vol. 14, No. 1, pps. 17-30.	
C57	Ouyang, Jianyong et al., "Electric-Field-Induced Charge Transfer Between Gold Nanoparticle and Capping 2-Naphthalenethiol and Organic Memory Cells", <i>Applied Physics Letters</i> , 86, 2005, pps. 123507-1 to 123507-3.	
C58	Scheinert, S. et al., J. Appl. Phys., 92 330 (2002)	Ц
C59	emeraldine form to the metallic regime."	
C60	Huang, J., et al., J. Am. Chem. Soc., 25, 314 (2003) "Polianiline Nanofibers: Facile Synthesis and Chemical Sensors"	
C61	Virji, S., et al. Nano Lett., 4, 491 (2004). "Pollyaniline Nanofiber Gas Sensors: Examiner of Response Mechanisms"	
C62	Huang, J., et al., J. Am. Chem. Soc., 126, 851 (2004). " A General Chemical Route to Polyaniline Nanofibers"	
C63	Furukawa, T., Adv. Colloid Interface Sci., 71-72, 183 (1997). "Structure and functional properties of ferroelectric polymer"	
C64	Tsuyoshi, T., et al., App. Phys. Lett., 83, 4978 (2003). "Electrical carrier-injection and transoprt characteristics of photochromic diarylethene films"	L
C65	Reed, M.A., et al., Appl. Phys. Lett., 78, 3735 (2001). "Molecular random access memory cell"	L
C66	Chen, Y., et al, Appl. Phys. Lett. 82, 1610 (2003). "Nanoscale molecular-switch devices fabricated by imprint lithography"	
C67	21, 1987, p. 913-915.	
C68	January 14, 1999, p. 121-128.	L
C69	Buckminsterfullerene", SCIENCE, Vol. 258, November 27, 1992, p. 1474-1476.	
C70	Mobility, IEEE ELECTRON DEVICE LETTERS, Vol. 18, No. 3, March 1977, p. 87-89.	
C71	1505-1514.	L
C72	CARCHANO, H. et al., "Bistable Electrical Switching in Polymer Thin Films", APPLIED PHYSICS LETTERS, Vol. 19, No. 19, November 15, 1971, p. 414-415.	L
C73	Lett. 67 (15), October 9, 1995, p. 2241-2242.	L
C74	by a Scanning Tunneling Microscope", APPLIED PHYSICS LETTERS, Vol. 73, No. 6, August 10, 1998, p. 850-852.	
C75	No. 12, June 15, 1974, p. 589-591.	
C76	BRYCE, Martin R., "Tetrathiafulvalenes as π-Electron Donors for Intramolecular Charge- Transfer Materials", <i>Advanced Materials</i> , 1999, 11, No. 1, p. 11-23.	
	C56 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73 C74 C75	Hosteler, Michael J. et al., "Alkanethiolate Gold Cluster Molecules with Core Diameters from 1,5 to 5.2 nm: Core and Monolayer Properties as a Function of Core Size", Lanamuir, 1998, Vgl. 14, No. 1, pps. 17-30. Ouyang, Jianyong et al., "Electric-Field-Induced Charge Transfer Between Gold Narioparticle and Capping 2-Naphthalenethiol and Organic Memory Cells", Applied Physics Letters, 86, 2005, pps. 123507-1 to 123507-3. C58 Scheinert, S. et al., J. Appl. Phys., 92 330 (2002) Chiang, J.C., et al., Synth. Met. 13, 193, (1986). "Polyaniline: Protonic acid doping of the emeraldine form to the metallic regime." C60 Huang, J., et al., J. Am. Chem. Soc., 25, 314 (2003) "Polianiline Nanofibers: Facile Synthesis and Chemical Sensors" C61 Wing, S., et al. Nano Lett., 4, 491 (2004). "Pollyaniline Nanofiber Gas Sensors: Examiner of Response Mechanisms" C62 Wirji, S., et al. Nano Lett., 4, 491 (2004). "Pollyaniline Nanofiber Gas Sensors: Examiner of Response Mechanisms" C63 Furukawa, T., Adv. Colloid Interface Sci., 71-72, 183 (1997). "Structure and functional properties of ferroelectric polymer" C64 Tsuyoshi, T., et al., App. Phys. Lett., 83, 4978 (2003). "Electrical carrier-injection and transoprt characteristics of photochromic diarylethene films" C65 Read, M.A., et al., App. Phys. Lett., 78, 3735 (2001). "Molecular random access memory cell" C66 Chen, Y., et al., App. Phys. Lett., 27, 1610 (2003). "Nanoscale molecular-switch devices fabricated by imprint lithography" C67 TANG, C.W. et al., "Organic Electroluminescence in Conjugated Polymers", NATURE, Vol. 397, January 14, 1999, p. 121-128. C68 SARICIFTCI, N.S. et al., "Photoinduced Electron Transfer from a Conducting Polymer to Buckminsterfullerene", SCIENCE, Vol. 258, November 27, 1992, p. 1474-1476. C70 GNDLACH: D.J. et al., "Patacene Organic Thin-Film Transistors-Molecular Ordering and Mobility", IEEE ELECTRON DEVICE LETTERS, Vol. 18, No. 3, March 1977, p. 87-89. BALDO, Marc et al., "Organic Vapor Phase Deposition", Adv. Mater. 1998, 10, No. 18, p. 1505-

Examiner	/Long	Tran/	Date	12/16/2007
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Substitute for form 1449/PTO				Complete if Known	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	June 2, 2006
				First Named Inventor	Yang Yang
				Art Unit	2818
	(Use as many sh	eets a	s necessary)	Examiner Name	Long K. Tran
Sheet	6	of	6	Attorney Docket Number	58086-231274

/LT C77 MARTIN, NAZARIO et al., "Evidence for Two Separate One-electron Transfer Events in Excited Fulleropyrrolidine Dyads Containing Tetrathiafulvalene (TTF)", J. Phys. Chem. A 2000, 104, p. 4648-4657.

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